EE-SPX-W

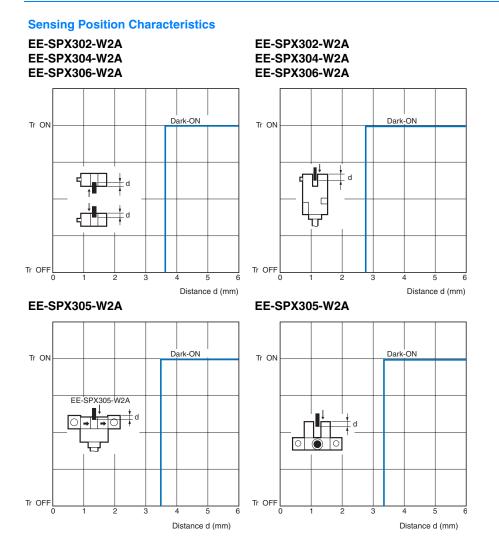
Ratings and Specifications

Item	Models	EE-SPX302-W2A, EE-SPX402-W2A EE-SPX304-W2A, EE-SPX404-W2A EE-SPX306-W2A, EE-SPX406-W2A	EE-SPX305-W2A EE-SPX405-W2A		
Sensing distance		3.6 mm (slot width)	5 mm (slot width)	*1. The indicator is a GaP red LED (peak wavelength: 700 nm).	
Sensing object		Opaque: 1 $ imes$ 0.5 mm min.	Opaque: 2×0.8 mm min.	*2. The response frequency was measured by detecting the following rotating disk.	
Differential distance		0.05 mm max.			ting disk.
Light source		GaAs infrared LED (pulse lighting) with a peak wavelength of 940 nm			
Indicator *1		Light indicator (red)			Disk
Supply voltage		5 to 24 VDC ±10%, ripple (p-p): 5% max.		2 mm 2 mm 2 mm	
Current consumption		Average: 15 mA max.; Peak: 50 mA max.			
Control output		NPN voltage output: Load power supply voltage: 5 to 24 VD Load current: 80 mA max. OFF current: 0.5 mA max. 80 mA load current with a residual voltag 10 mA load current with a residual voltag	e of 1.0 V max.	EE-SPX305-W2A	
Response frequency *2		500 Hz min.			101
Ambient illumination		3,000 lx max. with incandescent light or sunlight on the surface of the receiver			
Ambient temperature range		Operating: -10 to +55°C Storage: -25 to +65°C			
Ambient humidity range		Operating: 5% to 85% Storage: 5% to 95%		EE-SPX302-W2A	EE-SPX306-W2A
Vibration resistance		Destruction: 10 to 55 Hz, 1.5-mm double amplitude for 2 h each in X, Y, and Z directions			
Shock resistance		Destruction: 500 m/s ² for 3 times each in X, Y, and Z directions			
Degree of protection		IEC IP50			
Connecting method		Pre-wired (standard cable length: 1 m)		-	
Weight		18.5 g		-	
Material	Case	Polycarbonate			
	Holder				

I/O Circuit Diagrams

NPN Output

Model	Output configuration	Timing charts	Output circuit
EE-SPX402-W2A EE-SPX404-W2A EE-SPX405-W2A EE-SPX406-W2A EE-SPX302-W2A EE-SPX304-W2A EE-SPX305-W2A EE-SPX306-W2A	Light-ON	Incident Interrupted Light indicator ON (red) OFF Output ON transistor OFF Load 1 Operates (relay) Releases Load 2 H	Light indicator (red) Brown Load 1 Main Black Black
	Dark-ON	Incident Interrupted Light indicator ON (red) OFF Output ON transistor OFF Load 1 Operates (relay) Releases Load 2 H Load 2 H	* Voltage output (when the sensor is connected to a transistor circuit)



Safety Precautions

Refer to Warranty and Limitations of Liability.

WARNING

This product is not designed or rated for ensuring safety of persons either directly or indirectly. Do not use it for such purposes.



Precautions for Correct Use

Make sure that this product is used within the rated ambient environment conditions.

• Wiring

- When extending the cable, use an extension cable with conductors having a total cross-section area of 0.3 mm². The total cable length must be 2 m maximum.
- To use a cable length longer than 2 m, attach a capacitor with a capacitance of approximately 10 μ F to the wires as shown below. The distance between the terminal and the capacitor must be within 2 m. (Use a capacitor with a dielectric strength that is at least twice the Sensor's power supply voltage.)



• Make sure the total length of the power cable connected to the product is less than 10 m even if a capacitor is inserted.



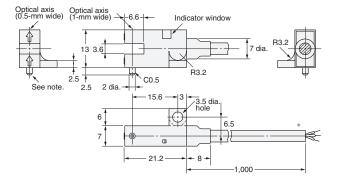
EE-SPX-W

(Unit: mm)

Dimensions

EE-SPX302-W2A EE-SPX402-W2A

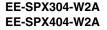




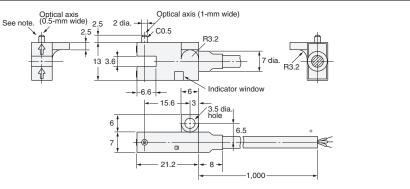
* Vinyl-insulated round cable of 3.5 dia., 3 cores, (0.14 mm² with 1.0-dia. insulator); Standard length: 1 m

Tolerance class IT16 applies to dimensions in this datasheet unless otherwise specified.

Note: The lug is used to prevent turning and to indicate the optical axis. When installing, make a fixed hole of 2.1 to 2.3 mm dia.

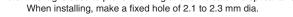


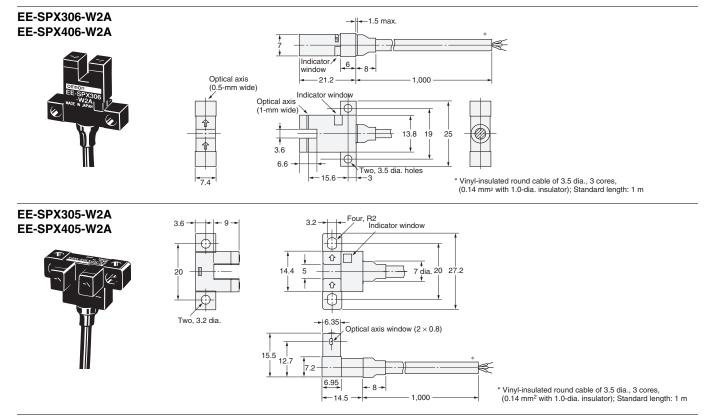




 * Vinyl-insulated round cable of 3.5 dia., 3 cores, (0.14 mm² with 1.0-dia. insulator); Standard length: 1 m









Read and Understand This Catalog

Please read and understand this catalog before purchasing the products. Please consult your OMRON representative if you have any questions or comments.

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- · Systems, machines, and equipment that could present a risk to life or property.

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